

IV. Remarks.

The Examiner entered the following rejections.

1. Claims 1-10, 13-22, 28-32 are rejected under 35 USC 102(e) as being anticipated by Baranda et al. 6,739,433 B1.

As to claims 1, 13, and amended 28, Applicant appreciates the specificity with which the Examiner has responded to the Applicant's arguments. Applicant respectfully directs the Examiner to Fig. 1 of the application. According to Fig. 1 the rib angle (α) is a measurement of the relationship of the sides of the rib. The Examiner's argument is based on the groove angle of Baranda which is disposed between adjacent ribs. Please see page 5, lines 1-15.

Further, Fig. 5 of Baranda only illustrates a relationship between an outer covering of adjacent tension members (92). Applicant disagrees with the Examiner's argument because Baranda does not teach an angle for the "groove" as suggested by the Examiner, and in any case does not teach an angle for a rib. Instead, Fig. 5 as marked up by the Examiner only comprises an arbitrarily drawn approximation of an angle for a portion of the feature between the tensile cords. The basis of the marks drawn by the Examiner are not explained and they have no support in the specification and they are not subject to further rebuttal by Applicant since they are only an approximate construct by the Examiner.

As to S-B, Applicant points out that it only teaches a toothed belt, please see col. 3, lines 51-54. As illustrated by the Examiner, Fig. 4 of S-B depicts a toothed belt. The teeth run side by side across the width of the belt as shown in Fig. 4, which is cited by the Examiner.

On the other hand the instant invention claims a ribbed belt, as illustrated by Fig. 1 of the application, namely, the cross-section shows the ribs (25) and tensile cords (15). The claimed configuration only has merit if the tensile cords run in the lengthwise, load bearing direction as described in the cross-section, Fig. 1. If the configuration advanced by the Examiner based on S-B were the case, the tensile cords would have to extend from side to side across the width of the belt, giving a ladder-like arrangement, rendering them useless for the purpose of enabling the belt to bear a tensile load. Hence, in a "ribbed" belt the tensile load bearing cords run parallel to the ribs, as shown in Fig. 1 and in the attached SAE Standard SAE J1459¹, while in a toothed belt the teeth run across the width of the belt. The Examiner's reference to Fig. 5 of S-B as well as to Porter in the following argument also illustrates this arrangement.

Therefore, Baranda does not teach a ribbed belt having the claimed rib angle.

Applicant respectfully requests that this rejection be withdrawn as to all claims.

¹ SAE J1459 describes the features known in the art for a ribbed belt. These include the ribs as well as the tensile cords and the relationship of the tensile cords to the ribs.

2. Claims 1-10, 13-22, 28-32 are rejected under 35 USC 102(e) as being anticipated by "Sizing up V-ribbed Belts" by Gary Porter.

As to claims 1, 13 and 28, Porter does not disclose the claimed invention because page 2 of Porter as cited by the Examiner generally describes a v-ribbed belt but gives no teaching of the advantageous claimed rib angle of approximately 90°.² Reference to SAE J1459 illustrates that the known rib angle for ribbed belts is in the range of 37° to 43°. The claimed rib angle is approximately 90°.

3. Claims 1-26 and 28-32 are rejected under 35 USC 103(a) as being unpatentable over Schroder-Brumloop et al 6,138,799 (S-B) in view of Robar et al. 6,633,159.

As noted in Applicant's prior submission, as to claims 1, 13, 26, 28 neither S-B nor Robar teaches a ribbed profile having a rib angle. More particularly, Fig. 4 of S-B teaches a belt having *teeth*, each tooth extending across (or parallel to) the width of the toothed belt 44, col. 3, lines 19-25. Robar teaches only a flat belt, see Fig. 1, and therefore does not teach ribs.

"Teeth" (or "toothed") and "rib" each have distinct and known meanings in the art. They are not equivalent. They are not equivalent because "teeth" and "ribs" are disposed at right angles relative to each other as used on a belt. Therefore, they are not interchangeable in service situations. By extension, toothed belts and ribbed belts are not interchangeable in any type of service.

More particularly, "teeth" extend across a belt width, from side to side, as shown and described in Roos & Oman on page 2 of "Trends in Power Transmission: The Synchronous Belt". Teeth are used on synchronous belts and can be used for timing rotating sprockets, for example, between a crankshaft and a camshaft for timing an engine. Teeth may also be referred to as "cogs". The toothed belt may only operate trained between sprockets. Sprockets have cooperating grooves and teeth for meshing with the toothed belt. S-B only teaches a toothed belt with no mention of ribs. The Examiner is referred to the arguments presented in the prior submission dated Oct. 26, 2005.

Applicant requests withdrawal of this rejection and allowance of all claims.

4. Claims 11, 12, 23, 24 and 26 are rejected under 35 USC 103(a) as being unpatentable over "Sizing up V-ribbed Belts" in view of Robar et al. 6,633,159

Claims 11, 12 depend from claim 1. Claims 23, 24 depend from claim 13.

² For the purpose of the argument presented in the previous section for Baranda, page 2 of the Porter reference clearly illustrates a v-ribbed belt as having ribs which extend along a belt length which ribs are parallel to the tensile cords.

The Examiner has graciously indicated that Robar is only offered for the purpose of the teaching of utilizing an electric circuit connected to the tensile cord for measuring/detecting a tensile cord load.

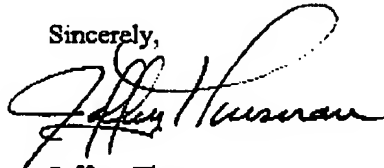
As to claim 26, not all of the limitations are taught by the references, namely, the ribs having a rib angle of 90° is not taught. The argument as to why the 90° rib angle is not taught by Porter is presented in #3 above. Further, neither Robar nor Porter teaches a pulley having a ribbed profile.

V. Fees

Any fees payable for this response, including the fee for the IDS and the petition for extension of time, may be deducted from deposit account 07-0475 in the name of The Gates Corporation.

Thank you for your attention to this case.

Sincerely,



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Date: Sept. 26, 2005

RIBBED BELTS AND PULLEYS—SAE J1459 SEP2001

SAE Standard

Part of the SAE V-Belt Committee approved August 1984 and completely revised August 1988. Revised by the SAE Belt Drive Systems Committee August 1997 and completely revised September 2001. Rationale statement available.

1. **Scope**—This SAE Standard covers the dimensioning technique, tolerances, methods of measurement of V-ribbed belts and mating pulleys for use on automotive accessory drives.

References—There are no referenced publications specified herein.

3. **V-Ribbed Belts**—Although several v-ribbed cross sections are available, this document shall be confined to "PK" (K) section belts which are used in automotive applications, including trucks at least up to Class 3. Belts shall conform to Figure 1.

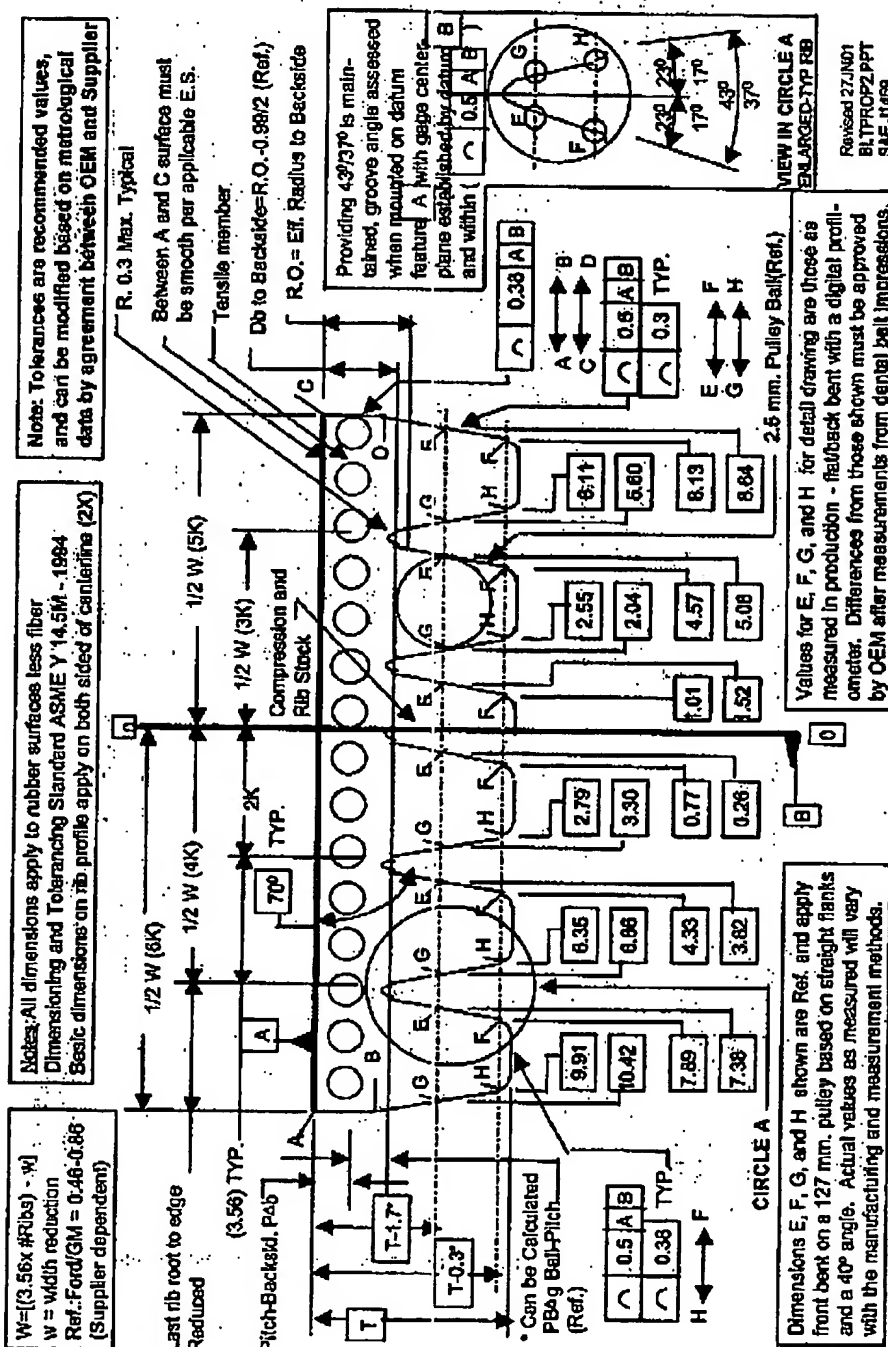


FIGURE 1—BELT DIMENSIONING TEMPLATE